



2662
RECEIVED

JUL 07 2004

Technology Center 2600

United States
82269-2
Patents

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION

| | |
|-----------------|---|
| Serial Number: | 09/465,705 ✓ |
| Group Art Unit: | 2662 ✓ |
| Examiner: | David E. Odland |
| Title: | METHOD AND APPARATUS FOR ADJUSTING PACKET TRANSMISSION VOLUME FROM A SOURCE |
| Filing Date: | December 17, 1999 |
| Inventors: | James Aweya; Delfin Y. Montuno; Michel Ouellette |
| Agent's ref: | 82269-2 |

July 5, 2004

U.S. Commissioner of Patents and Trademarks
U.S. Patent and Trademark Office
Washington, D.C. 20231
United States

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

This Information Disclosure Statement is being filed to satisfy the duty under 37 CFR 1.56 to disclose to the Office information, known to individuals associated with the filing and prosecution of the subject application, which may be material to the examination of the application.

A list of all patents, publications or other information submitted for consideration by the Office is hereby provided by way of the enclosed four (4) sheets of Form PTO/SB/08. Also enclosed are copies of references listed on the Form.

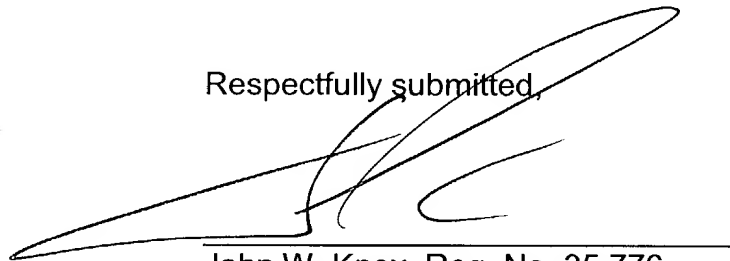
BEST AVAILABLE COPY

This statement is not to be construed as a representation that a search has been made or an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 CFR 1.56(b).

It is respectfully requested that the information be expressly considered by the Examiner and that the references be made of record and appear among the "References Cited" on any patent to issue therefrom.

Applicant has not received a first Office action after filing a request for continued examination under 37 C.F.R. § 1.114, and therefore believes that no fee is required to file this statement. However, the Patent Office is hereby authorized to charge any fee, any fee deficiency, or credit any overpayment in fees, to our Deposit Account Number 06-0713.

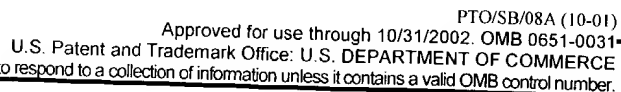
Respectfully submitted,



John W. Knox, Reg. No. 35,776
SMART & BIGGAR
Box 11560 Vancouver Centre
2200 – 650 West Georgia Street
Vancouver, British Columbia
Canada V6B 4N8
Telephone: 604-682-7295

JWK:mmm
Encl.: Form PTO/SB/08
Copies of References Listed

BEST AVAILABLE COPY



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

| | | | |
|-------|---|----|---|
| Sheet | 1 | of | 4 |
|-------|---|----|---|

Complete if Known

| | |
|--------------------|------------|
| Application Number | 09/465,705 |
|--------------------|------------|

| | |
|-------------|-------------------|
| Filing Date | December 17, 1993 |
|-------------|-------------------|

| | |
|----------------------|-------------|
| First Named Inventor | James Aweya |
|----------------------|-------------|

| | |
|----------|------|
| Art Unit | 2662 |
|----------|------|

Examiner Name

| | |
|------------------------|---------|
| Attorney Docket Number | 82269-2 |
|------------------------|---------|

RECEIVED

~~JUL 07 2004~~

Technology Center 2000

U.S. PATENT DOCUMENTS

Examiner
Signature

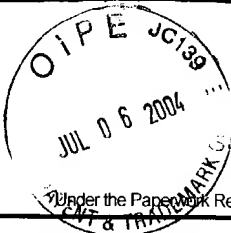
Date
Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: ☐ Unsaved Document 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231
Unsaved Document

BEST AVAILABLE COPY



PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 4

Complete if Known

| | |
|------------------------|-------------------|
| Application Number | 09/465,705 |
| Filing Date | December 17, 1999 |
| First Named Inventor | James Aweya |
| Art Unit | 2662 |
| Examiner Name | |
| Attorney Docket Number | 82269-2 |

RECEIVED

JUL 07 2004

Technology Center 2000

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|------------------------|--------------------------|---|----------------|
| | C1 | OTT, Teunis J.; LAKSHMAN, T.V.; WONG, Larry H.; "SRED: Stabilized RED", INFOCOMM '99, Eighteenth Annual Joint Conference of the IEEE Computer and Communications Societies Proceedings, IEEE, June 1999, Volume 3, Pages 1346-1355 | |
| | C2 | FENG, Wu-Chang; KANDLUR, Dilip D.; SAHA, Debanjan; SHIN, Kang G.; "BLUE: A New Class of Active Queue Management Algorithms", U. Michigan CSE-TR-387-99, April 1999 | |
| | C3 | FENG, Wu-Chang; KANDLUR, Dilip D.; SAHA, Debanjan; SHIN, Kang G.; "Techniques for Eliminating Packet Loss in Congested TCP/IP Networks", U. Michigan CSE-TR-349-97, November 1997 | |
| | C22 | SRINIVASAN, V.; VARGHESE, G.; "Faster IP Lookups using Controlled Prefix Expansion", ACM Transactions on Computer Systems, pp. 1-10, June 1998 | |
| | C23 | EATHERTON, William N.; "ASIC Based IPV4 Lookups", Washington University, Applied Research Laboratory, pp. 1-22, June 23, 1998 | |
| | C24 | EATHERTON, William N.; "Hardware-Based Internet Protocol Prefix Lookups", Thesis, Washington University, pp. 1-100, May 1999 | |
| | C25 | SRINIVASAN, V.; VARGHESE, G.; "Fast Address Lookups Using Controlled Prefix Expansion", ACM Transactions on Computer Systems, Vol. 17, No. 1, pp. 1-40, February 1999 | |
| | C26 | FILIPPI, E.; INNOCENTI, V.; VERCELLONE, V.; "Address Lookup Solutions for Gigabit Switch/Router", Globecom '98, Sydney, Australia, November 1998 | |
| | C27 | DEGERMARK, Mikael; BRODNIK, Andrej; CARLSSON, Svante; PINK, Stephen; "Small Forwarding Tables for Fast Routing Lookups", Proc. of ACM SIGCOMM, pp. 3-14, September 1997 | |
| | C28 | DOERINGER, Willibald; KARJOTH, Gunter; NASSEHI, Medhi; "Routing on Longest-Matching Prefixes", IEEE/ACM Trans. On Networking, Vol. 4, No. 1, pp. 86-97, February 1996 | |
| | C29 | TZENG, Henry Hong-Yi; PRZYGIENDA, Tony; "On Fast Address-Lookup Algorithms", pp. 1067-1082, IEEE Journal On Selected Areas In Communications, Vol. 17, No. 6, June 1999 | |
| | C30 | TZENG, Henry Hong-Yi; "Longest Prefix Search Using Compressed Trees", Globecom '98, Sydney, Australia, November 1998 | |
| | C31 | KUMAR, Vijay P.; LAKSHMAN, T.V.; STILIADIS, Dimitrios; "Beyond Best Effort: Router Architectures for the Differentiated Services of Tomorrow's Internet, IEEE Communications Magazine, pp. 152-164, May 1998 | |

Examiner
Signature

Date
Considered

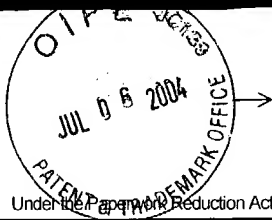
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Unsaved Document

BEST AVAILABLE COPY



Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 4

Complete if Known

| | |
|------------------------|-------------------|
| Application Number | 09/465,705 |
| Filing Date | December 17, 1999 |
| First Named Inventor | James Aweya |
| Art Unit | 2662 |
| Examiner Name | |
| Attorney Docket Number | 82269-2 |

RECEIVED

JUL 07 2004

Technology Center 2600

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|------------------------|--------------------------|---|----------------|
| | C32 | GUPTA, Pankaj; LIN, Steven; McKEOWN, Nick; "Routing Lookups in Hardware at Memory Access Speeds", IEEE INFOCOM, April 1998 | |
| | C33 | NILSSON, Stefan; KARLSSON, Gunnar; "Fast Address Lookup for Internet Routers", IFIP Workshop on Broadband Communications, pp. 10-22, April 1998 | |
| | C34 | WALDVOGEL, Marcel; VARGHESE, George; TURNER, Jon; PLATTNER, Bernhard; "Scalable High Speed IP Routing Lookups", Proc. Of ACM SIGCOM, September 1997 | |
| | C35 | LAMPSON, B.; SRINIVASAN, V.; VARGHESE, G.; "IP Lookups Using Multiway and Multicolumn Search", pp. 1-23, August 1997 | |
| | C36 | ZITTERBART, M.; HARBAUM, T.; MEIER, D.; BROKELMANN, D.; "HeaRT: High Performance Routing Table Look Up", IEEE Workshop Architecture & Implementation of High Performance Communications Subsystems, Thessaloniki, Greece, June 1997 | |
| | C37 | FULLER, V.; LI, T.; YU, J.; VARADHAN, K.; "Classless Inter-Domain Routing (CIDR): an Address Assignment and Aggregation Strategy", RFC 1519, Internet Engineering Task Force, September 1993 | |
| | C38 | PEI, Tong Bi; ZUKOWSKI, Charles; "Putting Routing Tables in Silicon", IEEE Network Magazine, pp. 42-50, January 1992 | |
| | C39 | MORRISON, Donald R.; "PATRICIA - Practical Algorithm To Retrieve Information Coded in Alphanumeric", Journal of the Association for Computing Machinery, pp. 514-534, Vol. 15, No. 4, October 1968 | |
| | C41 | GHANI, Nasir; "Enhanced TCP/IP ACK Pacing for High Speed Networks", Proc. 16th Int'l Teletraffic Congress, Edinburgh, Scotland, June, 1999 | |
| | C42 | MA, Jian; "Improving TCP Performance in IP networks with Wireless links", IEEE, ICPWC '99, Jaipur, India, pp. 211-215 | |
| | C43 | NARVAEZ, Paolo; SIU, Kai-Yeung; "Acknowledgement bucket scheme for regulating TCP flow over ATM", Computer Networks and ISDN Systems, IEEE Globecom '97, Phoenix, Arizona, November, 1997 pp. 1775-1791 | |
| | C44 | NARVAEZ, Paolo; SIU, Kai-Yeung; "An Acknowledgement Bucket Scheme for Regulating TCP Flow over ATM", IEEE Globecom '97, Phoenix, Arizona, November, 1997 | |
| | C45 | KIOKE, Arata; "TCP Flow control with ACR information", ATM Forum Contribution 97-0758R1, November, 1997 | |

Examiner
Signature

Date
Considered

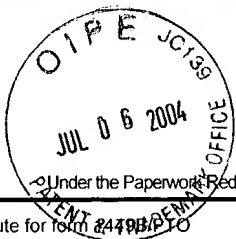
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Unsaved Document

BEST AVAILABLE COPY



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 2449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 4 of 4

Complete if Known

| | |
|------------------------|-------------------|
| Application Number | 09/465,705 |
| Filing Date | December 17, 1999 |
| First Named Inventor | James Aweya |
| Art Unit | 2662 |
| Examiner Name | |
| Attorney Docket Number | 82269-2 |

RECEIVED

JUL 07 2004

Technology Center 2600

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|------------------------|--------------------------|---|----------------|
| | C46 | STEVENS, W.; Memo (IETF RFC 2001): "TCP Slow Start, Congestion Avoidance, Fast Retransmit, and Fast Recovery Algorithms", January, 1997 | |
| | C47 | KARN, P.; "Dropping TCP acks", Mail to the end-to-end mailing list, February, 1996 | |
| | C48 | ASTROM, K.; HAGGLUND T.; "PID Controllers: Theory, Design and Tuning", Instrument Society of America, 1995, pp. v, 80-81 | |
| | C49 | RAMAKRISHNA, M.V.; FU, E.; BAHCEKAPILI, E.; "Efficient Hardware Hashing Functions for High Performance Computers", pp. 1378-1381; IEEE Transactions on Computers, Vol. 46, No. 12, December 1997 | |
| | C50 | JAIN, Raj; "A Comparison of Hashing Schemes for Address Lookup in Computer Networks"; pp. 1-17; Technical Report DEC-TR-593 Digital Equipment Corporation, February 1989 | |
| | C51 | McKENNEY, Paul E.; "High-Speed Event Counting and Classification Using a Dictionary Hash Technique"; pp. III-71 - III-75; International Conference on Parallel Processing, 1989 | |
| | C52 | CARTER, Larry; FLOYD, Robert; GILL, John; MARKOWSKY, George; WEGMAN, Mark; "Exact and Approximate Membership Testers"; Proc. 10th Annual ACM Symposium on Theory of Computing, pp. 59-65, May 1978 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | |
|-----------------------|--|--------------------|--|
| Examiner Signature | | Date Considered | |
|-----------------------|--|--------------------|--|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Unsaved Document

BEST AVAILABLE COPY